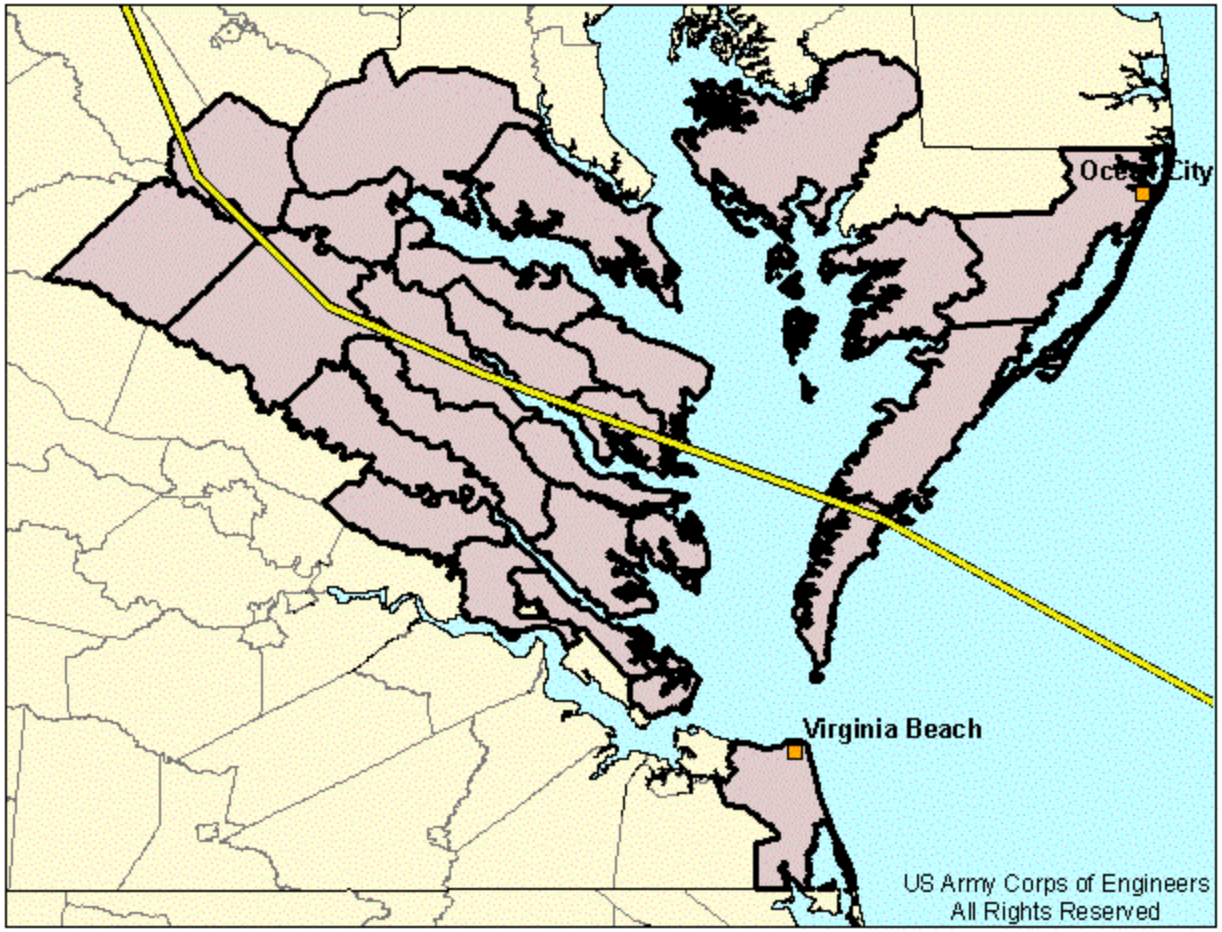
US Army Corps of Engineers

Hurricane Dean 1983 Debris Model

Landfall Plus About 12 Hours

For Planning Purposes Only!



Post Landfall Debris Model Results

Virginia - 677,000 Yards
Maryland - 105,000 Yards

Model results per County on following page

This model is based on a Category 1 storm making landfall near Exmore, VA.

Historic Track

Debris

- < 100,000 cubic yards
- 100,000 - 249,999 cubic yards
- 250,000 - 499,999 cubic yards
- 500,000 - 999,999 cubic yards
- >1,000,000 cubic yards

Information provided on this page displays a Category 1 storm making landfall near Exmore, VA. These projections are based on information from the NHC (1600 EDT 05/20/2008) forecast. The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane dean 1983 Debris Model

Generated By:
Siemsen, LRL 1630 EDT 05/20/2008

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Dean 1983 Debris Model

Landfall Plus About 12 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
Maryland		Charles	7,000
		Dorchester	< 1,000
		Somerset	19,000
		St Mary's	68,000
		Worcester	11,000
Maryland	105,000		
Virginia		Accomack	82,000
		Caroline	24,000
		Essex	22,000
		Fredericksburg city	30,000
		Gloucester	49,000
		Hampton City	24,000
		James City	2,000
		King And Queen	12,000
		King George	26,000
		King William	13,000
		Lancaster	32,000
		Mathews	19,000
		Middlesex	27,000
		New Kent	2,000
		Northampton	30,000
		Northumberland	39,000
		Poquoson City	14,000
		Richmond	19,000
		Spotsylvania	68,000
		Stafford	91,000
		Virginia Beach city	< 1,000
		Westmoreland	27,000
		York	25,000
Virginia	677,000		

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

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Hurricane dean 1983 Debris Model

Generated By:
Siemsen, LRL 1630 EDT 05/20/2008

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Dean 1983 Commodities Model

Landfall Plus About **12** Hours

For Planning Purposes Only!

Post Landfall Water Model Results

Day One / Day Two / Day Three
VA – 3/6/11 Truckloads
MD – 1/1/2 Truckloads

Model results per County on following page

This model is based on a Category 1 storm making landfall near Exmore, VA.

Historic Track

Commodities

- < 5 Trucks Each
- 5 - 10 Trucks Each
- 11 - 20 Trucks Each
- 21 - 40 Trucks Each
- > 40 Trucks Each

Information provided on this page displays a Category 1 storm making landfall near Exmore, VA. These projections are based on information from the NHC ***(1600 EDT 05/20/2008)*** forecast. The amount of commodities forecasted is based on Mission Guide Book requirements and SME input. The graphic represents single day needs with full distribution system in place and operating.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane dean 1983 Commodities Model	
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Sources: HURREVAC LRL-DEBRIS	Page 3 of 12

US Army Corps of Engineers

Hurricane Dean 1983 Commodities Model

Landfall Plus About **12** Hours

For Planning Purposes Only!

State	Truckloads per State	County	Truckloads per County
Maryland		Somerset	1
		St Mary's	1
Maryland	2		
Virginia		Accomack	2
		Essex	1
		King And Queen	1
		Lancaster	1
		Mathews	1
		Middlesex	1
		Northampton	1
		Northumberland	1
		Richmond	1
		Westmoreland	1
Virginia	11		

The amount of commodities forecasted is based on Mission Guide Book requirements and SME input and the above table indicates suggested needs based on phased deployment of a commodities distribution system.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

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Hurricane dean 1983 Commodities Model

Generated By:
Siemsen, LRL 1630 EDT 05/20/2008

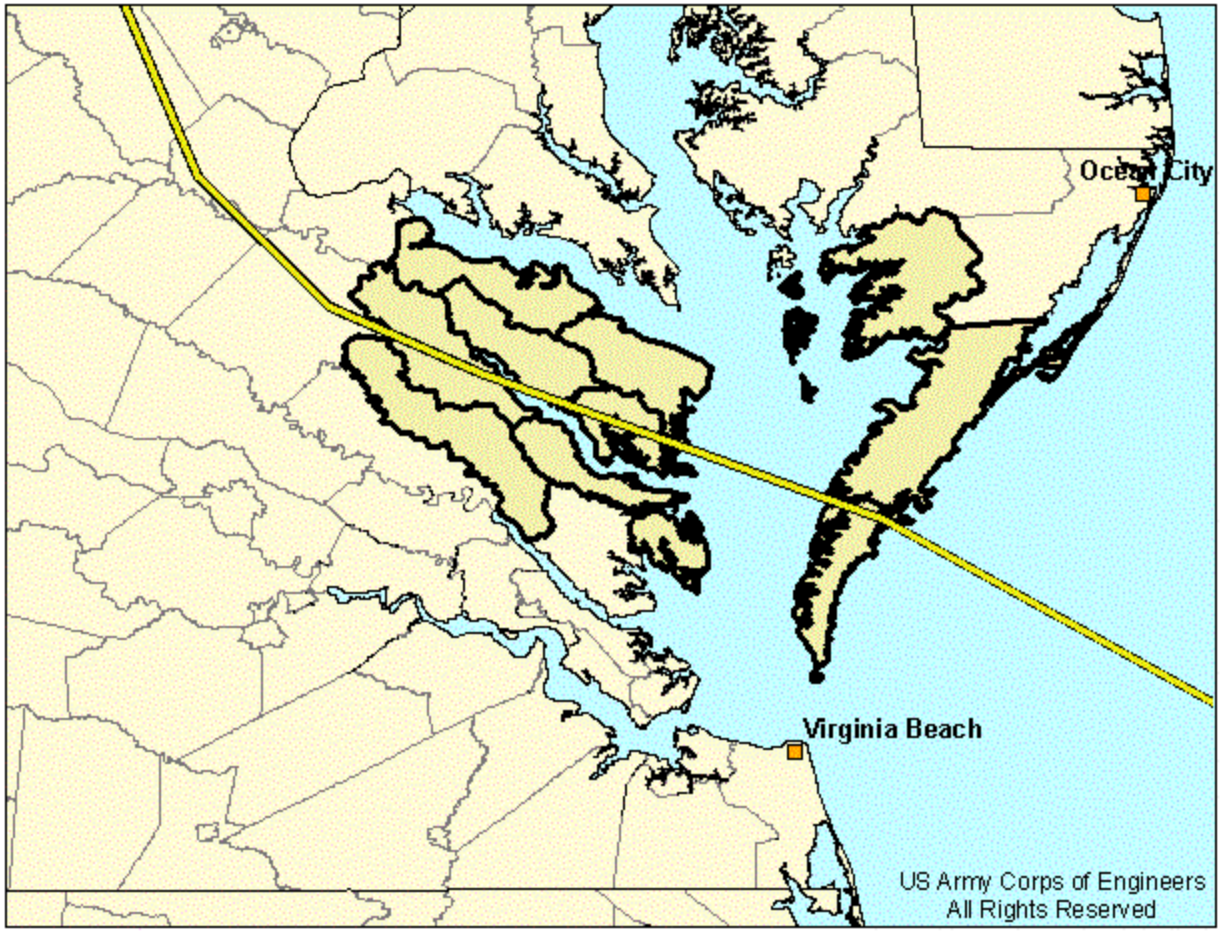
Sources:
HURREVAC
LRL-DEBRIS

Hurricane Dean 1983 Temporary Roofing Model

US Army Corps of Engineers

Landfall Plus About 12 Hours

For Planning Purposes Only!



Post Landfall Temporary Roofing Model Results

Virginia - 1,100

Model results per County on following page

This model is based on a Category 1 storm making landfall near Exmore, VA.

Historic Track

Temporary Roofing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 1 storm making landfall near Exmore, VA. These projections are based on information from the NHC (1600 EDT 05/20/2008) forecast. Temporary roofing is based on 3% in CAT 1.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane dean 1983 Roofing Model	
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Sources: HURREVAC LRL-DEBRIS	Page 5 of 12

US Army Corps of Engineers

Hurricane Dean 1983 Temporary Roofing Model

Landfall Plus About 12 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County
Maryland		Somerset	< 100
Maryland			
Virginia		Accomack	300
		Essex	< 100
		King And Queen	< 100
		Lancaster	200
		Mathews	< 100
		Middlesex	200
		Northampton	200
		Northumberland	200
		Richmond	< 100
		Westmoreland	< 100
Virginia	1,100		

Temporary roofing is based on 3% in CAT 1.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

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Hurricane dean 1983 Roofing Model

Generated By:
Siemsen, LRL 1630 EDT 05/20/2008

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Dean 1983 Temporary Housing Model

US Army Corps of Engineers

Landfall Plus About 12 Hours

For Planning Purposes Only!

Post Landfall Temporary Housing Model Results

Model results per County on following page

This model is based on a Category 1 storm making landfall near Exmore, VA.

Historic Track

Temporary Housing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 1 storm making landfall near Exmore, VA. These projections are based on information from the NHC (1600 EDT 05/20/2008) forecast. Temporary housing is based on nothing.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane dean 1983 Housing Model	
Generated By: Siemsen, LRL 1630 EDT 05/20/2008	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Dean 1983 Temporary Housing Model

Landfall Plus About 12 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County
		No Temporary Housing need expected	

Temporary housing is based on nothing.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

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Hurricane dean 1983 Housing Model

Generated By:
Siemsen, LRL 1630 EDT 05/20/2008

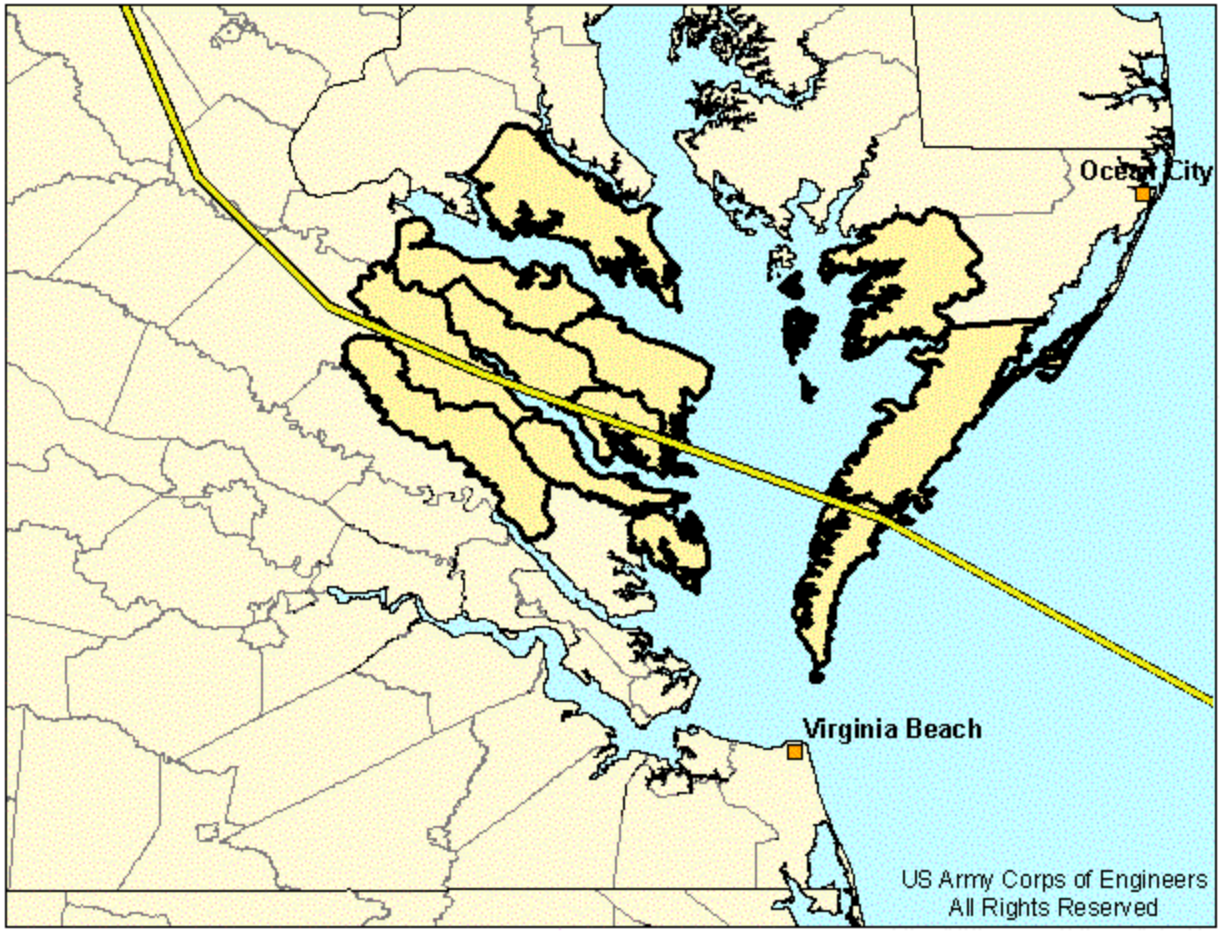
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Dean 1983 Population Model

Landfall Plus About 12 Hours

For Planning Purposes Only!



Post Landfall Population Model Results

Virginia - 89,000

Model results per County on following page

This model is based on a Category 1 storm making landfall near Exmore, VA.

Historic Track

Population

- < 25,000 persons
- 25,000 - 99,999 persons
- 100,000 - 174,999 persons
- 175,000 - 249,999 persons
- > 250,000 persons

Information provided on this page displays a Category 1 storm making landfall near Exmore, VA. These projections are based on information from the NHC (1600 EDT 05/20/2008) forecast. The numbers of persons included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2006 values).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane dean 1983 Population Model	
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Sources: HURREVAC LRL-DEBRIS	Page 9 of 12

US Army Corps of Engineers

Hurricane Dean 1983 Population Model

Landfall Plus About 12 Hours

For Planning Purposes Only!

State	Population per State	County	Population per County
Maryland		Somerset	< 1,000
		St Mary's	< 1,000
Maryland			
Virginia		Accomack	24,000
		Essex	4,000
		King And Queen	< 1,000
		Lancaster	12,000
		Mathews	4,000
		Middlesex	8,000
		Northampton	13,000
		Northumberland	13,000
		Richmond	8,000
		Westmoreland	3,000
Virginia	89,000		

The number of persons estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2006 values.

Details about this model may be obtained at http://www.englink.usace.army.mil
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Hurricane dean 1983 Population Model

Generated By:
Siemsen, LRL 1630 EDT 05/20/2008

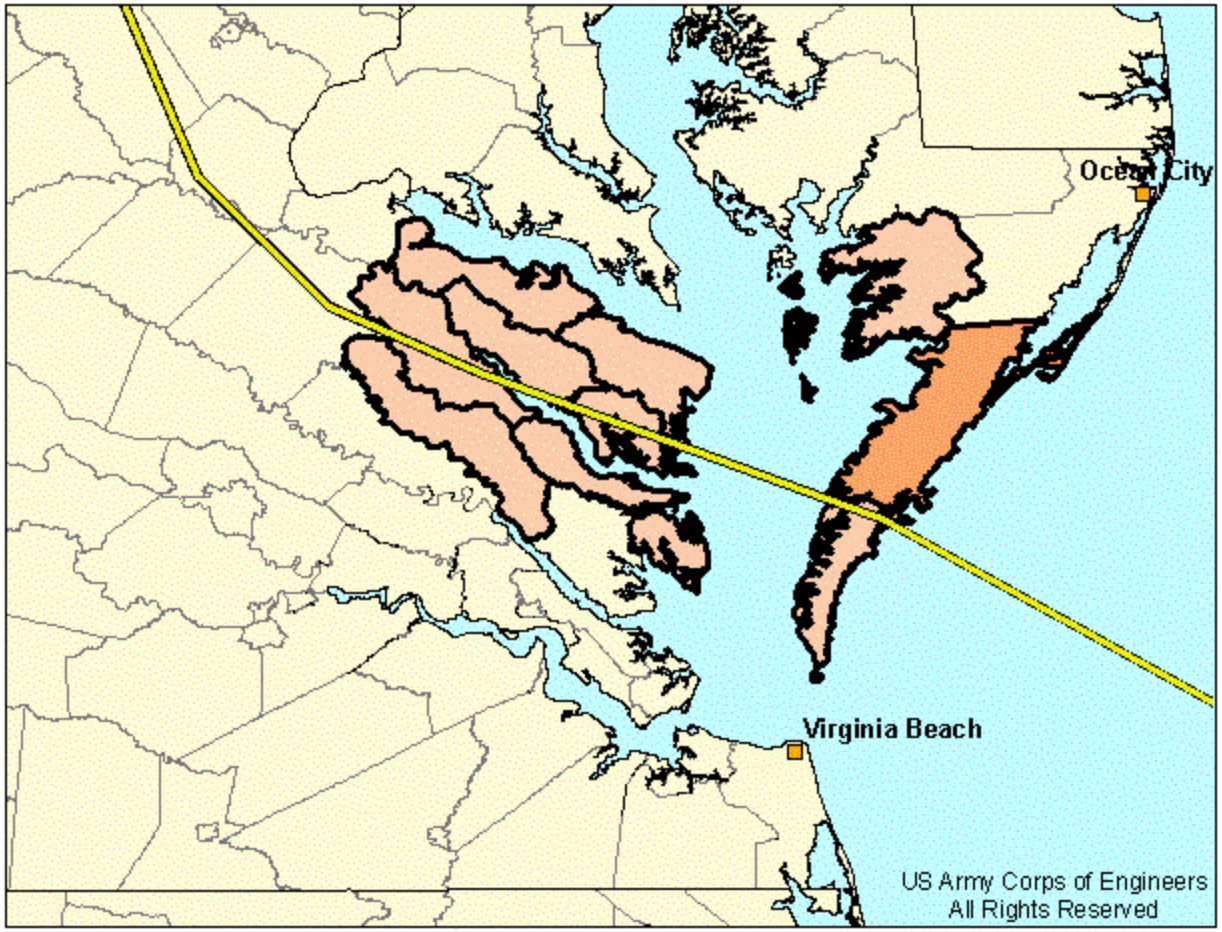
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Dean 1983 Households Model

Landfall Plus About 12 Hours

For Planning Purposes Only!



Post Landfall Households Model Results

Virginia - 37,000

Model results per County on following page

This model is based on a Category 1 storm making landfall near Exmore, VA.

Historic Track

Households

- < 7,500 households
- 7,500 - 14,999 households
- 15,000 - 24,999 households
- 25,000 - 49,999 households
- > 50000 households

Information provided on this page displays a Category 1 storm making landfall near Exmore, VA. These projections are based on information from the NHC (1600 EDT 05/20/2008) forecast. The numbers of households included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2006 values).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane dean 1983 Households Model	
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Sources: HURREVAC LRL-DEBRIS	Page 11 of 12

US Army Corps of Engineers

Hurricane Dean 1983 Households Model

Landfall Plus About 12 Hours

For Planning Purposes Only!

State	Households per State	County	Households per County
Maryland		Somerset	< 1,000
Maryland			
Virginia		Accomack	10,000
		Essex	2,000
		King And Queen	< 1,000
		Lancaster	5,000
		Mathews	2,000
		Middlesex	4,000
		Northampton	5,000
		Northumberland	6,000
		Richmond	3,000
		Westmoreland	< 1,000
Virginia	37,000		

The number of households estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2006 values.

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Hurricane dean 1983 Households Model

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